

66704 - Global change and management of natural risks

Syllabus Information

Academic Year: 2019/20

Subject: 66704 - Global change and management of natural risks

Faculty / School: 103 - Facultad de Filosofía y Letras

Degree: 328 - Master's in Land and Environmental Planning

ECTS: 6.0

Year: 1

Semester: Annual

Subject Type: Optional

Module: ---

1.General information

1.1.Aims of the course

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1.2.Context and importance of this course in the degree

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1.3.Recommendations to take this course

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2.Learning goals

2.1.Competences

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2.2.Learning goals

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2.3.Importance of learning goals

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3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

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4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as participative sessions, practical exercises, individual or group activities, guided activities, field work and autonomous work.

Students are expected to participate actively in the class throughout the course.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials, including a discussion forum.

4.2.Learning tasks

The course includes the following learning tasks:

- Lectures: 25 hours
- Practical, interactive, individual or group activities: 25 hours
- Guided activities: 34 hours
- Field work: 10 hours
- Autonomous work: 50 hours
- Assessment: 3 hours

4.3.Syllabus

The course will address the following topics:

Section I. GLOBAL CHANGE

- Topic 1. The quaternary frame. Past climate changes
- Topic 2. The instrumental period
- Topic 3. Change scenarios and environmental impacts

Section II. NATURAL HAZARDS

- Topic 4. Types and Risk Management
- Topic 5. Climate risks
- Topic 6. Hydrological risks
- Topic 7. Avalanche risk

4.4.Course planning and calendar

The course is divided into two sections. The first section includes the following topics: 1, 2, and 3. The second section includes the topics 4, 5, 6 and 7.

Further information concerning the timetable, classroom, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the *Facultad de Filosofía y Letras* web site (<https://fyl.unizar.es/horario-de-clases#overlay-context=horario-de-clases>)

4.5.Bibliography and recommended resources

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- Riesgos naturales / Francisco Javier Ayala-Carcedo, Jorge Olcina Cantos (coordinadores) . 1a. ed. Barcelona : Ariel, 2002
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- Domonkos, P., Venema, V. Auer, I., Mestre, O. y Brunetti, M., ¿The historical pathway towards more accurate homogenization?, Advanced Scientific Research, núm. 8, 2012, p. 45-52

- Guijarro, J. A., ¿Tendencias de la Temperatura?. En: Fenómenos meteorológicos adversos en España / C. García-Lega y F. Valero (eds.) Madrid : AMV ediciones, 2013, p. 313-323
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- Makowsky, K., Wild, M. y Ohmura, A., ¿Diurnal temperature range over Europe between 1950-2005?, Atmospheric Chemical Physics, núm. 8, 2008, p. 6483-6498
- Rohde, R., Muller, R. A., Jacobsen, R., Muller, E., Perimutter, S., Rosenfeld, A., Wurtele, J., Groom, D. y Wickham, C., ¿A New Estimate of the Average Earth Surface Land Temperature Spanning 1753 to 2011?, Geoinfor Geostat : An Overview, n